

REMARKS

Applicant has amended his claims herein to better clarify the invention. Claims 1, 9, 14, and 21, are amended herein to recite a virtual tape controller comprising a VTC Copy Queue. Support can be found in the Specification on Page 11 at Lines 5-6, and in FIG. 1C at element 124 (VTC Copy Queue).

Claims 1, 9, 14, and 21, are further amended herein to recite that a host computer communicates with a first virtual tape server using a host / VTS bandwidth. Support can be found in the Specification on Page 6 at Lines 14-19.

Claims 1, 9, 14, and 21, are further amended herein to recite a first virtual tape server communicates with a second virtual tape server via said using a VTS / VTS bandwidth. Support can be found in the Specification on Page 6 at Lines 19-20.

Claim 1 is amended herein to recite queuing a copy job in the VTC Copy Queue, wherein that copy job comprises copying a host computer file to the second virtual tape server. Support can be found in the Specification on Page 11 at Lines 5-6, Page 13 at Lines 3-9, and in FIG. 4 at step 440.

Claims 1, 9, 14, and 21, are further amended herein to recite that if an age of a queued copy job is greater than an age threshold, decreasing the host / VTS bandwidth thereby increasing the VTS / VTS bandwidth. Support can be found in the Specification on Page 6 at Line 21 through Page 7 at Line 6, Page 18 at Line 15 through Page 19 at Line 3, and in FIG. 6 at steps 670 and 680.

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

Claims 1-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lisiecki et al. (U.S. Pub. No. 2002/0147774) in view of Ravi et al (U.S. Pat. No. 6,292,834), Pittelkow (U.S. Pat. No. 7,043,663) and "what was well known in the art."

Neither Lisiecki et al., nor Ravi et al., nor Pittelkow et al., singly or in combination, teach a data storage and retrieval system comprising a host computer, a first virtual tape controller comprising a VTC Copy Queue, a first virtual tape server, and a second virtual tape server, wherein the host computer communicates with the first virtual tape server using a host / VTS bandwidth, and wherein the first virtual tape server communicates with the second virtual tape server using a VTS / VTS bandwidth, as recited in claims 1, 9, 14, and 21, as amended herein.

Neither Lisiecki et al., nor Ravi et al., nor Pittelkow et al., singly or in combination, teach writing a host computer file to the first virtual tape server, and queuing a copy of that host computer file in the VTC Copy Queue, where that copy job comprises copying the host computer file to the second virtual tape server, as recited in claims 1, 9, 14, and 21, as amended herein.

Neither Lisiecki et al., nor Ravi et al., nor Pittelkow et al., singly or in combination, teach decreasing the host / VTS bandwidth thereby increasing the VTS / VTS bandwidth if the age of the queued copy job is greater than an age threshold, as recited in claims 1, 9, 14, and 21, as amended herein.

In *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 167 L. Ed. 2d 705 (2007), the Supreme Court held that the obviousness analysis of *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966), controls an obviousness inquiry. The

Graham obviousness factors include “the scope and content of the prior art” and the “differences between the prior art and the claims”. *KSR*, 127 S. Ct. at 1734 (quoting *Graham*, 383 U.S. at 17-18). No combination of Lisiecki et al., Ravi et al., and/or Pittelkow et al., teach all the elements of Applicants' claims 1, 9, 14, and 21, as amended herein. This being the case, Applicants respectfully submit that claims 1, 9, 14, and 21, are patentable over the combined teachings of Lisiecki et al., Ravi et al., and Pittelkow et al.

Claims 2-4 and 6-8, as amended herein, depend, directly or indirectly, from claim 1, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 2-4 and 6-8 are patentable over the combined teachings of Lisiecki et al., Ravi et al., and Pittelkow et al.

Claims 10-13, as amended herein, depend, directly or indirectly, from claim 9, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 10-13 are patentable over the combined teachings of Lisiecki et al., Ravi et al., and Pittelkow et al.

Claims 15-18, as amended herein, depend, directly or indirectly, from claim 14, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, “a claim in dependent form shall be

construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

Applicants respectfully submit that claims 15-18 are patentable over the combined teachings of Lisiecki et al., Ravi et al., and Pittelkow et al.

Claims 20 and 21, as amended herein, depend, directly or indirectly, from claim 19, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

Applicants respectfully submit that claims 20 and 21 are patentable over the combined teachings of Lisiecki et al., Ravi et al., and Pittelkow et al.

Having dealt with all of the outstanding objections and/or rejections of the claims, Applicants submit that the application as amended is in condition for allowance, and an allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or additional fees are payable, please charge them, or credit an overpayment, to our Deposit Account No. 170055.

Respectfully submitted,

/Dale F. Regelman/

Dale F. Regelman, Ph.D.
Attorney for Applicants
Reg. No. 45,625

QUARLES & BRADY, LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is herewith being electronically transmitted via Electronic Filing System to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

/Catherine Gould/

Signature

August 6, 2008

Date of Signature

QUARLES & BRADY, LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233